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1600

RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/09/109,082A

TIME: 14:44:57

#31

Input Set : A:\2003-07-17 2121-0140P.ST25.txt

Output Set: N:\CRF4\07252003\I109082A.raw

3 <110> APPLICANT: MELKI, Judith
4 MUNNICH, Arnold
6 <120> TITLE OF INVENTION: Spinal Muscular Atrophy Diagnostic Methods
8 <130> FILE REFERENCE: 2121-0140P
10 <140> CURRENT APPLICATION NUMBER: 09/109,082A
11 <141> CURRENT FILING DATE: 1998-07-02
13 <150> PRIOR APPLICATION NUMBER: 08/545,196
14 <151> PRIOR FILING DATE: 1995-10-19
16 <160> NUMBER OF SEQ ID NOS: 65
18 <170> SOFTWARE: PatentIn version 3.2
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21 <211> LENGTH: 347
22 <212> TYPE: DNA
23 <213> ORGANISM: Homo sapiens
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30 ccaactgcaag aaaaccttaa ctgcagccta ataattgttt tctttgggat aactttttaa 180
32 gtacattaaa agactatcaa ctttaatttct gatcatattt tgttgaataa aataagtaaa 240
34 atgtcttgtg aacaaaatgc tttttaacat ccatataaag ctatctatat atagctatct 300
36 atgtctatat agctattttt ttttaacttcc ttttattttc cttacag 347
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40 <211> LENGTH: 444
41 <212> TYPE: DNA
42 <213> ORGANISM: Homo sapiens
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47 aaacaaatgt ttttgaacag ttaaaaagtt cagatgttaa aaagttgaaa ggtaaatgta 120
49 aaacaatcaa tattaagaa ttttgatgcc aaaactatta gataaaagggt taatctacat 180
51 ccctactaga attctcatat ttaactgggt gggtatgttg aagaaacata ctttcacaat 240
53 aaagagcttt aggatatgat gccattttat atcactagta ggcagaccag cagacttttt 300
55 tttattgtga tatgggataa cctaggcata ctgcactgta cactctgaca tatgaagtgc 360
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72 ccaactgcaag aaaaccttaa ctgcagccta ataattgttt tctttgggat aactttttaa 180
74 gtacattaaa agactatcaa ctttaatttct gatcatattt tgttgaataa aataagtaaa 240

p.6

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91 aaacaatcaa tattaagaa ttttgatgcc aaaactatta gataaaaggt taatctacat      180
93 ccctactaga atttcatac ttaactgggt gggtgtgtgg aagaaacata ctttcacaat      240
95 aaagagcttt aggatatgat gccattttat atcactagta ggcagaccag cagacttttt      300
97 tttattgtga tatgggataa cctaggcata ctgcactgta cactctgaca tatgaagtgc      360
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149 gene.
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 160 <400> SEQUENCE: 9
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 166 Asp Ser Val Leu Phe Arg Arg Gly Thr Gly Gln Ser Asp Asp Ser Asp
 167 20 25 30
 170 Ile Trp Asp Asp Thr Ala Leu Ile Lys Ala Tyr Asp Lys Ala Val Ala
 171 35 40 45
 174 Ser Phe Lys His Ala Leu Lys Asn Gly Asp Ile Cys Glu Thr Ser Gly
 175 50 55 60
 178 Lys Pro Lys Thr Thr Pro Lys Arg Lys Pro Ala Lys Lys Asn Lys Ser
 179 65 70 75 80
 182 Gln Lys Lys Asn Thr Ala Ala Ser Leu Gln Gln Trp Lys Val Gly Asp
 183 85 90 95
 186 Lys Cys Ser Ala Ile Trp Ser Glu Asp Gly Cys Ile Tyr Pro Ala Thr
 187 100 105 110
 190 Ile Ala Ser Ile Asp Phe Lys Arg Glu Thr Cys Val Val Val Tyr Thr
 191 115 120 125
 194 Gly Tyr Gly Asn Arg Glu Glu Gln Asn Leu Ser Asp Leu Leu Ser Pro
 195 130 135 140
 198 Ile Cys Glu Val Ala Asn Asn Ile Glu Gln Asn Ala Gln Glu Asn Glu
 199 145 150 155 160
 202 Asn Glu Ser Gln Val Ser Thr Asp Glu Ser Glu Asn Ser Arg Ser Pro
 203 165 170 175
 206 Gly Asn Lys Ser Asp Asn Ile Lys Pro Lys Ser Ala Pro Trp Asn Ser
 207 180 185 190
 210 Phe Leu Pro Pro Pro Pro Pro Met Pro Gly Pro Arg Leu Gly Pro Gly
 211 195 200 205
 214 Lys Pro Gly Leu Lys Phe Asn Gly Pro Pro Pro Pro Pro Pro Pro Pro
 215 210 215 220
 218 Pro Pro His Leu Leu Ser Cys Trp Leu Pro Pro Phe Pro Ser Gly Pro
 219 225 230 235 240
 222 Pro Ile Ile Pro Pro Pro Pro Pro Ile Cys Pro Asp Ser Leu Asp Asp
 223 245 250 255
 226 Ala Asp Ala Leu Gly Ser Met Leu Ile Ser Trp Tyr Met Ser Gly Tyr
 227 260 265 270
 230 His Thr Gly Tyr Tyr Met Gly Phe Arg Gln Asn Gln Lys Glu Gly Arg
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 234 Cys Ser His Ser Leu Asn
 235 290
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 239 <211> LENGTH: 1582
 240 <212> TYPE: DNA
 241 <213> ORGANISM: Homo sapiens
 243 <400> SEQUENCE: 10

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244 cggggcccca cgctgcgcac ccgcggggtt gctatggcga tgagcagcgg cggcagtggg      60
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248 gattctgaca tttgggatga tacagcactg ataaaagcat atgataaagc tgtggcttca      180
250 tttaaagcatg ctctaaagaa tgggtgacatt tgtgaaactt cgggtaaacc aaaaaccaca      240
252 cctaaaagaa aacctgctaa gaagaataaa agccaaaaga agaatactgc agcttcctta      300
254 caacagtgga aagttgggga caaatgttct gccatttggg cagaagacgg ttgcatttac      360
256 ccagctacca ttgcttcaat tgattttaag agagaaacct gtgttgtggg ttacactgga      420
258 tatggaaata gagaggagca aaatctgtcc gatctacttt cccaatctg tgaagtagct      480
260 aataatatag aacagatgc tcaagagaat gaaaatgaaa gccaagtttc aacagatgaa      540
262 agtgagaact ccaggtctcc tggaaataaa tcagataaca tcaagcccaa atctgctcca      600
264 tggaaaccct ttctccctcc accaccccc atgcaggggc caagactggg accaggaaag      660
266 ccaggtctaa aattcaatgg cccaccaccg ccaccgccac caccaccacc ccacttacta      720
268 tcatgctggc tgcctccatt tccttctgga ccaccaataa ttccccacc acctcccata      780
270 tgtccagatt ctcttgatga tgctgatgct ttgggaagta tgttaatttc atggtacatg      840
272 agtggctatc atactggcta ttatatgggt tttagacaaa atcaaaaaga aggaagggtgc      900
274 tcacattcct taaattaagg agaatgctg gcatagagca gactaaatg acaccactaa      960
276 agaaacgac agacagatct ggaatgtgaa gcgttataga agataactgg cctcatttct      1020
278 tcaaatatc aagtgttggg aaagaaaaaa ggaagtggaa tgggtaactc ttcttgatta      1080
280 aaagtatatg aataaccaaa tgcaatgtga aatattttac tggactcttt tgaaaaacca      1140
282 tctgtaaaag actgaggtgg ggggtggagg ccagcacggt ggtgaggcag ttgagaaaat      1200
284 ttgaatgtgg attagatttt gaatgatatt ggataattat tggtaatttt atggcctgtg      1260
286 agaagggtgt ttagtattat aaaagactgt cttattttgc atacttaagc atttaggaat      1320
288 gaagtgttag agtgtcttaa aatgtttcaa atggtttaac aaaatgtatg tgaggcgtat      1380
290 gtggcaaaat gttacagaat ctaactggtg gacatggctg ttcattgtac tgtttttttc      1440
292 tatcttctat atgtttaaaa gtatataata aaaatattta attttttttt aaaaaaaaaa      1500
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309 ccactgcaag aaaaccttaa ctgcagccta ataattgttt tctttgggat aactttttaa      180
311 gtacattaaa agactatcaa cttaatctct gatcatattt tgttgaataa aataagtaaa      240
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315 atatctatat agctattttt ttttaacttc ttttattttc cttacagggt tttagacaaa      360
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319 gaaagtgaat ctacttttg taaaacttta tggtttgtgg aaaacaaatg tttttgaaca      480
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325 cttactggtt tggttgtgtg gaagaaacat actttcaca taaagagctt taggatata      660
327 tgccatttta tatcactagt aggcagacca gcagactttt ttttattgtg atatgggata      720
329 acctaggcat actgcactgt acactctgac atatgaagtg ctctagtcaa gtttaactgg      780
331 tgtccacaga ggacatggtt taactggaat tcgtcaagcc tctggttcta atttctcatt      840
333 tgcaggaaat gctggcatag agcagcacta aatgacacca ctaaaagaaac gatcagacag      900
335 atctggaatg tgaagcgtaa tagaagataa ctggcctcat ttcttcaaaa tatcaagtgt      960
337 tgggaaagaa aaaaggaagt ggaatgggta actcttcttg attaaaagtt atgtaataac      1020

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Output Set: N:\CRF4\07252003\I109082A.raw

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341 gtgggggttg gaggccagca cgggtggtgag gcagttgaga aaatttgaat gtggattaga 1140
343 ttttgaatga tattggataa ttattggtaa ttttatggcc tgtgagaagg gtgttgtagt 1200
345 ttataaaaga ctgtcttaat ttgcatactt aagcatttag gaatgaagtg ttagagtgtc 1260
347 ttaaaatgtt tcaaatgggt taacaaaatg tatgtgaggc gtatgtggca aaatgttaca 1320
349 gaatctaact ggtggacatg gctgttcatt gtactgtttt tttctatctt ctatatgttt 1380
351 aaaagtatat aataaaaaata ttttaattt 1408

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356 <212> TYPE: DNA

357 <213> ORGANISM: Homo sapiens

359 <400> SEQUENCE: 12

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364 gattctgaca tttgggatga tacagcactg ataaaagcat atgataaagc tgtggcttca 180
366 ttttaagcatg ctctaaagaa tgggtgacatt tgtgaaactt cgggtaaacc aaaaaccaca 240
368 cctaaaagaa aacctgctaa gaagaataaa agccaaaaga agaatactgc agcttcctta 300
370 caacagtgga aagttgggga caaatgttct gccatttggt cagaagacgg ttgcatttac 360
372 ccagctacca ttgcttcaat tgattttaag agagaaacct gtgttggtgt ttacactgga 420
374 tatggaaata gagaggagca aaatctgtcc gatctacttt cccaatctg tgaagtagct 480
376 aataatatag aacagaatgc tcaagagaat gaaaatgaaa gccaaagttc aacagatgaa 540
378 agtgagaact ccagggtctcc tggaaataaa tcagataaca tcaagcccaa atctgctcca 600
380 tggaaactctt ttctccctcc accacccccc atgccagggc caagactggg accaggaaag 660
382 ccaggtctaa aattcaatgg cccaccaccg ccaccgccac caccaccacc ccacttacta 720
384 tcatgctggc tgcctccatt tccttctgga ccaccaataa ttccccacc acctccata 780
386 tgtccagatt ctcttgatga tgctgatgct ttgggaagta tgttaatttc atggtacatg 840
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394 tcaaaatatc aagtgttggg aaagaaaaaa ggaagtggaa tgggtaactc ttcttgatta 1080
396 aaagtatatg aataaccaa tgcaatgtga aatattttac tggactctt tgaaaaacca 1140
398 tctgtaaaag actggggtgg ggggtggagg ccagcacggt ggtgaggcag ttgagaaat 1200
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404 gaagtgttag agtgtcttaa aatgtttcaa atgggttaac aaaatgtatg tgaggcgtat 1380
406 gtggcaaaat gttacagaat ctaactggtg gacatggctg ttcattgtac tgtttttttc 1440
408 tatcttctat atgtttaaaa gtatataata aaaatattta attttttttt aaaaaaaaaa 1500
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412 aaaaaaaaaa aaaaaaaaaa aa 1582

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417 <212> TYPE: DNA

418 <213> ORGANISM: Homo sapiens

420 <400> SEQUENCE: 13

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425 cactgcaag aaaaccttaa ctgcagccta ataattgttt tctttgggat aactttttaa 180
427 gtacattaaa agactatcaa cttaatttct gatcatattt tgttgaataa aataagtaaa 240
429 atgtcttggt aacaaaatgc tttttaacat ccatataaag ctatctatat atagctatct 300

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:15; N Pos. 11,44,66,67,94,108
Seq#:18; N Pos. 26,69,72,73,88,120,158,277,298
Seq#:22; N Pos. 330,450